

REMARKS**Status of the Claims***Pending claims*

Claims 1, 14, 15, 29, 33, 35, 40, 42 to 45, 48, 49, 51, 54, 56, 58, 60, 78, 79, 84, 86 to 88, 90, 92 to 94, 98, 101, 105 to 107, 111, 113, 116, 138, 143, 149, 152, 164, 165, 174, 175, 177, 182, 184 and 187 to 192 are pending.

Claims canceled and added in the Instant Response

Claims 60, 78, 79, 84, 86, 88, 90, 92 to 94, 98, 101, 105, 149, 152, 164, 165 and 191 are canceled, without prejudice or disclaimer, and new claims 193 to 228 are added. Thus, after entry of the instant response, claims 1, 14, 15, 29, 33, 35, 40, 42 to 45, 48, 49, 51, 54, 56, 58, 87, 106, 107, 111, 113, 116, 138, 143, 174, 175, 177, 182, 184, 187, 188 to 190 and 192 to 228, will be pending.

Support for the Claim Amendments

The specification, including the claim set as filed, sets forth an extensive description of the new and amended claims. For example, support for nucleic acids of the invention as oligonucleotides, nucleotides, polynucleotides, or to a fragment of any of these, to DNA or RNA (e.g., mRNA, rRNA, tRNA) of genomic or synthetic origin which may be single-stranded or double-stranded and may represent a sense or antisense strand, to peptide nucleic acid (PNA), or to any DNA-like or RNA-like material, natural or synthetic in origin, including, e.g., iRNA, ribonucleoproteins (e.g., iRNPs), can be found, inter alia, in paragraph [0102] of U.S. patent application publication no. 20040180378 ("the '378 publication"). Support for nucleic acids of the invention having various sequence identities as compared to exemplary sequences of the invention, including, e.g., SEQ ID NO:29, and having varying lengths, can be found, inter alia, in paragraphs [0117], [0118], [0119] and [0191] of the '378 publication. Support for nucleic acids made by a method comprising non-stochastically re-assembling the segments of exemplary nucleic acids of the invention by Synthetic Ligation Reassembly (SLR) to generate a recombinant nucleic acid encoding a fluorescent protein, and methods for making a fluorescent protein-encoding nucleic acid using this methods, can be found, inter alia, in paragraphs [0272] to [0280] of the '378 publication. Support

for nucleic acids encoding tags can be found, inter alia, in paragraphs [0394] and [0433] of the '378 publication.

Amendment to the Drawings

This amendment also corrects an error to Figure 5. The attached sheet of Drawings include changes to Figure 5. This sheet of the corrected Figure 5 replaces the original Figure 5. In the attached, corrected Figure 5, the length of DVSA Green is now correctly stated as 228 amino acids (the length of DVSA Green was wrongly listed in the originally filed Figure 5 as 253 amino acids). Support for the correct length of DVSA Green can be found, inter alia, in the sequence listing as filed, which shows SEQ ID NO:18 as 228 amino acids in length, and, in the first sentence of paragraph [0365] of the '378 publication, which states "FIG. 5 is a summary of data comparing the properties of exemplary fluorescent polypeptides of the invention DVSA Green, which is SEQ ID NO:18 ...".

At the Examiner's request, an annotated sheet showing changes can be submitted.

The Group and Sequence Restriction Requirement

The Patent Office alleged that the pending claims of the application are directed to nineteen (XIX) separate and distinct inventions under 35 U.S.C. §121, as set forth in pages 2 to 4 of the OA. It is also alleged that Applicants are required to elect a single exemplary nucleic acid or polypeptide for examination.

The Group Restriction Requirement Election

In response to the Group Restriction Requirement, Applicants elect Group I, drawn to, inter alia, nucleic acids, probes, amplification primer pairs, expression cassettes, vectors, cloning vehicles, transformed cells, antisense oligonucleotides, and arrays of immobilized nucleic acids, including, inter alia, claims 1, 14, 15, 29, 33, 35, 40, 43 to 45, 48, 49, 58, 87, 188, 189 and 192 (and new claims 193 to 211), and classified in, inter alia, class 536, subclass 23.1, with traverse.

The Sequence Restriction Requirement Election

In response to the Sequence Restriction Requirement, Applicants elect the genus of polypeptides based on the exemplary nucleic acid of the invention SEQ ID NO:29.

Rejoining process claims under In re Ochiai

Applicants thank the Examiner for noting that after the elected product claims have been found to be allowable, all withdrawn process (methods) claims which depend from or otherwise include all of the limitations of the allowed product claims should be rejoined. MPEP §821.04; pg 800-63, 8th Edition, August 2001; In re Ochiai, 37 USPQ2d 1127 (Fed. Cir. 1995); In re Brouwer, 37 USPQ2d 1663 (Fed. Cir. 1995); 1184 OG 86, 3/26/96.

Applicants note that Groups encompassing withdrawn process (methods) claims which depend from or otherwise include all of the limitations of the allowed product claims include Group II (claims 42, 111 and 113), Group XII (claims 106 to 107), Group XIII (claims 116, 138 and 143), Group XVIII (claims 174 and 175), Group XIX (claims 177, 184 and 187).

Applicants further note that new process (methods) claims which depend from or otherwise include all of the limitations of the allowed product claims include new claims 212 to 215.

Reasons to reconsider and withdraw restriction requirement

Applicants respectfully request the Patent Office reconsider and, in part, withdraw the restriction requirement for the following reasons:

Applicants respectfully request the Patent Office rejoin Groups III, IV, and XI to the elected Group I (nucleic acids, vectors, transformed cells, etc.) for the following reasons:

Applicants respectfully aver that a complete search directed to Group III, claim 51, drawn to transgenic non-human animals comprising a nucleic acid sequence of the invention, would necessarily encompass a complete search directed to Group I nucleic acids. In other words, a complete search of the prior art for a genus of nucleic acids based on the elected SEQ ID NO:29, would necessarily also encompass a complete search of the transgenic non-human animal art. Thus,

there is no extra burden on the Examiner – Group III must be searched during the course of a complete and thorough search for the elected Group I nucleic acids, vectors, etc., of the invention.

Applicants respectfully aver that a complete search directed to Group IV, claims 54 and 56, drawn to transgenic plants and seeds comprising a nucleic acid sequence of the invention, would necessarily encompass a complete search directed to Group I nucleic acids. In other words, a complete search of the prior art for a genus of nucleic acids based on the elected SEQ ID NO:29, would necessarily also encompass a complete search of the transgenic plants and seeds art. Thus, there is no extra burden on the Examiner – Group IV must be searched during the course of a complete and thorough search for the elected Group I nucleic acids, vectors, etc., of the invention.

Applicants respectfully aver that a complete search directed to Group XI, claims 101 and 105, drawn to computer systems and computer readable medium comprising a nucleic acid sequence of the invention, would necessarily encompass a complete search directed to Group I nucleic acids. In other words, a complete search of the prior art for a genus of nucleic acids based on the elected SEQ ID NO:29, would necessarily also encompass a complete search of the computer systems and computer readable medium art. Thus, there is no extra burden on the Examiner – Group XI must be searched during the course of a complete and thorough search for the elected Group I nucleic acids, vectors, etc., of the invention.

CONCLUSION

It is believed that the all claims pending in this application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

Applicants noted that after the elected product claims have been found to be allowable, all withdrawn process (methods) claims which depend from or otherwise include all of the limitations of the allowed product claims should be rejoined, and that Groups encompassing withdrawn process (methods) claims which depend from or otherwise include all of the limitations of the allowed product claims include Group II (claims 42, 111 and 113), Group XII (claims 106 to 107), Group XIII (claims 116, 138 and 143), Group XVIII (claims 174 and 175), Group XIX (claims 177, 184 and 187).

Applicants have traversed the group restriction requirement, in part, and have respectfully requested the Patent Office rejoin Groups III, IV, and XI to the elected Group I

In the unlikely event that the transmittal form is separated from this document and the Patent Office determines that an extension and/or other relief is required, Applicant petitions for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing 564462005300. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at (858) 720-5133.

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Respectfully submitted,

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AMENDMENT TO THE DRAWINGS

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